

CHAPTER 6.

Overall Annual DBE Goal

As part of its implementation of the Federal DBE Program, ADOT is required to set an overall annual goal for DBE participation in its FHWA-funded transportation contracts. The Final Rule effective February 28, 2011 revised requirements for goal-setting so that agencies that implement the Federal DBE Program only need to develop and submit overall annual DBE goals every three years. ADOT last submitted its overall annual DBE goal (a goal of 7.76%) for federal fiscal years 2012 through 2014. It must submit a new goal in 2014 for federal fiscal years 2015 through 2017.

ADOT must prepare and submit a Goal and Methodology document to FHWA that presents its overall annual DBE goal for the next three fiscal years, supported by information about the steps used to develop the overall goal. Chapter 6 provides information that ADOT might consider as part of setting its overall annual DBE goal. Chapter 6 is organized in two parts based on the two-step process that 49 CFR Part 26.45 outlines for agencies to set their overall goals:

- A. Establishing a base figure; and
- B. Consideration of a step 2 adjustment.

Through this process, agencies such as ADOT must determine “the level of DBE participation you would expect absent the effects of discrimination.”¹

A. Establishing a Base Figure

Establishing a base figure is the first step in calculating an overall annual goal for DBE participation in ADOT’s FHWA-funded transportation contracts.

As presented in Chapter 5, potential DBEs are available for 14.61 percent of ADOT FHWA-funded transportation contracts based on analysis of July 2007 through June 2013 FHWA-funded contracts.² ADOT might consider 14.61 percent as the base figure for its overall annual DBE goal.

B. Consideration of a Step 2 Adjustment

Per the Federal DBE Program, ADOT must consider potential step 2 adjustments to the base figure as part of determining its overall annual DBE goal. ADOT is not required to make any step 2 adjustments as long as it considers appropriate factors and explains its decision in its Goal and Methodology document.

¹ 49 CFR Section 26.45(b).

² As discussed in Chapter 5, potential DBEs include current DBEs and those MBE/WBEs that are DBE-certified or appear that they could be based on annual revenue limits described in 49 CFR Part 26.

The Federal DBE Program outlines factors that an agency must consider when assessing whether to make any step 2 adjustments to its base figure:

1. Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years;
2. Information related to employment, self-employment, education, training, and unions;
3. Any disparities in the ability of DBEs to get financing, bonding and insurance; and
4. Other relevant data.³

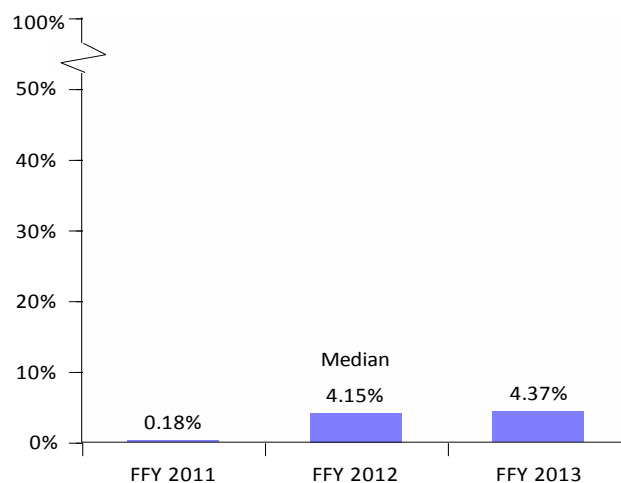
Keen Independent completed an analysis of each of the above step 2 factors and was able to quantify the effect of certain factors on the base figure. Other information examined was not as easily quantifiable but is still relevant to ADOT as it determines whether to make any step 2 adjustments.

1. Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years. USDOT's "Tips for Goal-Setting" suggests that agencies should examine data on past DBE participation on their USDOT-funded contracts in recent years (i.e., the percentage of contract dollars going to DBEs).

USDOT suggests that agencies should choose the median level of annual DBE participation for relevant years as the measure of past participation: "Your goal setting process will be more accurate if you use the median (instead of the average or mean) of your past participation to make your adjustment because the process of determining the median excludes all outlier (abnormally high or abnormally low) past participation percentages."⁴ Figure 6-1 presents past DBE participation based on payments from ADOT Uniform Reports of DBE Awards or Commitments and Payments reported to the FHWA. Participation is shown for the three most recent complete federal fiscal years.

Figure 6-1.
ADOT reported past DBE participation on FHWA-funded contracts based on payments, federal fiscal years 2011, 2012 and 2013

Source: ADOT Uniform Reports of DBE Awards/Commitments and Payments.



³ 49 CFR Section 26.45.

⁴ Section III (A)(5)(c) in USDOT. Tips for Goal-Setting in the Federal Disadvantaged Enterprise (DBE) Program as updated June 25, 2013 <http://www.dot.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

After having discontinued setting DBE contract goals in 2006, ADOT reinstated DBE contract goals for FHWA-funded contracts in FFY 2011.

Median DBE participation for FHWA-funded contracts for FFY 2011 through FFY 2013 was 4.15 percent based on ADOT's reports. At the time of the 2014 Availability Study, the most recent full federal fiscal year for which ADOT had reported data was FFY 2013 (ending September 2013).⁵

The median DBE participation (based on payments) for FHWA-funded contracts for the last three full fiscal years, 4.15 percent, indicates that ADOT would make a downward step 2 adjustment based on this factor.

2. Information related to employment, self-employment, education, training, and unions.

Chapter 4 summarizes information about conditions in the Arizona transportation contracting industry for minorities, women and MBE/WBEs. Detailed quantitative analyses of marketplace conditions in Arizona are presented in Appendices E through H. Keen Independent's analyses indicate that there are barriers that certain minority groups and women face related to entry and advancement and business ownership in the Arizona construction and engineering industries. Such barriers may affect the availability of MBE/WBEs to obtain and perform ADOT and local agency transportation contracts.

It may not be possible to quantify the cumulative effect that barriers in employment, education, and training may have had in depressing the availability of minority- and women-owned firms in the Arizona transportation contracting industry. However, the effects of barriers in business ownership can be quantified, as explained below.

The study team used regression analyses to investigate whether race, ethnicity and gender affected rates of business ownership among workers in the Arizona construction and engineering industries. The regression analyses allowed the study team to examine those effects while statistically controlling for various personal characteristics including education and age (Appendix F provides detailed results of the business ownership regression analyses).⁶ Those analyses revealed that African Americans, Native Americans and white women working in construction were less likely than non-minorities and white men to own construction businesses, even after accounting for various gender-neutral personal characteristics. Each of these disparities was statistically significant.

Keen Independent analyzed the impact that barriers in business ownership would have on the base figure if African Americans, Native Americans and white women owned businesses at the same rate as similarly-situated non-minorities and white men. This type of inquiry is sometimes referred to as a "but for" analysis because it estimates the availability of MBE/WBEs *but for* the effects of race- and gender-based discrimination.

⁵ The most recent six month period was October 2013 through March 2014. ADOT reported 4.86 percent DBE participation based on payments.

⁶ The study team examined U.S. Census data on business ownership rates using methods similar to analyses examined in court cases involving state departments of transportation in California, Illinois, and Minnesota.

Figure 6-2 calculates the impact on overall MBE/WBE availability, resulting in possible upward adjustment of the base figure to 20.66 percent. The analysis included the same contracts that the study team analyzed to determine the base figure (i.e., FHWA-funded construction and engineering prime contracts and subcontracts that ADOT and local agencies awarded from July 2007 through June 2013). Calculations are explained below.

Figure 6-2.
Potential step 2 adjustment considering disparities in the rates of business ownership

| Subindustry and group | a. Current availability | b. Disparity index for business ownership | c. Availability after initial adjustment* | d. Availability after scaling to 100% | e. Components of overall MBE/WBE availability** |
|--|-------------------------------|--|--|--|--|
| Construction | | | | | |
| African American | 1.01 % | 77 | 1.31 % | 1.24 % | |
| Native American | 1.98 | 33 | 6.00 | 5.68 | |
| Other minorities | 6.19 | n/a | 6.19 | 5.86 | |
| White women | <u>6.69</u> | 84 | <u>7.96</u> | <u>7.54</u> | |
| MBE/WBEs | 15.87 % | n/a | 21.47 % | 20.33 % | 18.91 % |
| Majority-owned businesses | <u>84.13</u> | n/a | <u>84.13</u> | <u>79.67</u> | |
| Total firms | 100.00 % | n/a | 105.60 % | 100.00 % | |
| Engineering and other subindustries | | | | | |
| MBE/WBEs | 25.05 % | n/a | 25.05 % | 25.05 % | 1.75 % |
| Majority-owned businesses | <u>74.95</u> | n/a | <u>74.95</u> | <u>74.95</u> | |
| Total firms | 100.00 % | n/a | 100.00 % | 100.00 % | |
| Total for MBE/WBEs | 16.66 % | n/a | n/a | | 20.66 % |

Note: Numbers may not add to 100.00% due to rounding.

* Initial adjustment is calculated as current availability divided by the disparity index for business ownership.

** Components of the base figure were calculated as the value after adjustment and scaling to 100 percent, multiplied by the percentage of total FHWA-funded contract dollars in each industry (construction = 93%, engineering = 7%).

Source: Keen Independent based on FHWA-funded contracts for July 2007 through June 2013, 2014 availability analysis, and statistical analysis of U.S. Census Bureau American Community Survey data for Arizona for 2008-2012.

The study team completed these “but for” analyses separately for construction and engineering contracts and then weighted the results based on the proportion of FHWA-funded contract dollars that ADOT awarded for construction and engineering for June 2007-June 2013 (i.e., a 93% weight for construction and 7% weight for engineering). The rows and columns of Figure 6-2 present the following information from Keen Independent’s “but for” analyses:

- Current availability.** Column (a) presents the current availability of MBE/WBEs by group for construction and for engineering and other subindustries. Each row presents the percentage availability for MBEs and WBEs. The current combined availability of MBE/WBEs for ADOT FHWA-funded transportation contracts for July 2007-June 2013 is 16.66 percent, as shown in bottom row of column (a).

- b. **Disparity indices for business ownership.** As presented in Appendix F, African Americans, Native Americans and white women were significantly less likely to own construction firms than similarly-situated non-minorities and white men.

Keen Independent calculated simulated business ownership rates if those groups owned businesses at the same rate as non-minorities and white males who share similar personal characteristics. The study team then calculated a business ownership disparity index for each group by dividing the observed business ownership rate by the benchmark business ownership rate and then multiplying the result by 100.

Column (b) of Figure 6-2 presents disparity indices related to business ownership for the different racial/ethnic and gender groups. For example, as shown in column (b), white women own construction businesses at 84 percent of the rate that would be expected based on the simulated business ownership rates of white males who share similar personal characteristics. Appendix F explains how the study team calculated the disparity indices.

- c. **Availability after initial adjustment.** Column (c) presents availability estimates for MBEs and WBEs by industry after initially adjusting for statistically significant disparities in business ownership rates. The study team calculated those estimates by dividing the current availability in column (a) by the disparity index for business ownership in column (b) and then multiplying by 100.
- d. **Availability after scaling to 100%.** Column (d) shows adjusted availability estimates that were re-scaled so that the sum of the availability estimates equals 100 percent for each industry. The study team re-scaled the adjusted availability estimates by taking each group's adjusted availability estimate in column (c) and dividing it by the sum of availability estimates shown under "Total firms" in column (c) — and multiplying by 100. For example, the re-scaled availability estimate for white women shown for construction was calculated in the following way: $(7.96\% \div 105.6\%) \times 100 = 7.54\%$.
- e. **Components of overall DBE goal with upward adjustment.** Column (e) of Figure 6-2 shows the component of the total base figure attributed to the adjusted MBE and WBE availability for construction versus engineering and other subindustries. The study team calculated each component by taking the total availability estimate shown under "Potential DBEs" in column (d) for construction and for engineering/other — and multiplying it by the proportion of total FHWA-funded contract dollars in each industry (i.e., 93% for construction and 7% for engineering). For example, the study team used the 20.33 percent shown for MBE/WBE availability for construction firms in column (d) and multiplied it by 93 percent for a result of 18.91 percent. A similar weighting of MBE/WBE availability for engineering/other produced a value of 1.75 percent.

The values in column (e) were then summed to equal the overall base figure adjusted for barriers in business ownership, which is 20.66 percent as shown in the bottom of column (e).

The resulting adjusted availability for MBE/WBEs — 20.66 percent — is 4 percentage points higher than the unadjusted MBE/WBE availability of 16.66 percent. Therefore, based on information related to business ownership, ADOT might consider an upward adjustment to its overall DBE goal of up to 4 percentage points⁷.

3. Any disparities in the ability of DBEs to get financing, bonding and insurance. Analysis of access to financing and bonding revealed quantitative and qualitative evidence of disadvantages for minorities, women and MBE/WBEs.

- Any barriers to obtaining financing and bonding might affect opportunities for minorities and women to successfully form and operate construction and engineering businesses in the Arizona marketplace.
- Any barriers that MBE/WBEs face in obtaining financing and bonding would also place those businesses at a disadvantage in obtaining ADOT and local agency construction and engineering prime contracts and subcontracts.

Note that financing and bonding are closely linked, as discussed in Chapter 4 and Appendix J.

There is also evidence that some firms cannot bid on certain public sector projects because they cannot afford the levels of insurance required by the agency. This barrier appears to affect small businesses, which might disproportionately impact minority- and women-owned firms.

The information about financing, bonding and insurance supports an upward step 2 adjustment in ADOT's overall annual goal for DBE participation in FHWA-funded contracts.

4. Other factors. The Federal DBE Program suggests that federal aid recipients also examine “other factors” when determining whether to make any step 2 adjustments to their base figure.⁸

Success in the Arizona marketplace. Among the “other factors” examined in this disparity study was the success of MBE/WBEs relative to majority-owned businesses in the Arizona marketplace. There is quantitative evidence that certain groups of MBE/WBEs are less successful than majority-owned firms, and face greater barriers in the marketplace, even after considering neutral factors. Chapter 4 summarizes that evidence and Appendix H presents supporting quantitative analyses. There is also qualitative evidence of barriers to the success of minority- and women-owned businesses, as summarized in Chapter 4. Some of this qualitative information suggests that discrimination on the basis of race, ethnicity and gender affects minority- and women-owned firms in the Arizona transportation contracting industry.

Approaches for making step 2 adjustments. Quantification is discussed below.

1. Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years. Analysis of this factor suggests a downward step 2 adjustment — for

⁷ This goal would be 18.61 percent as the 4 percentage point adjustment would be from a base figure of 14.61 percent calculated after subtracting availability for MBE/WBEs that are not potential DBEs and adding white male-owned DBEs.

⁸ 49 CFR Section 26.45.

recent years, the median reported DBE participation on FHWA-funded contracts was 4.15 percent (from Figure 6-1).

USDOT “Tips for Goal-Setting” suggests taking one-half of the difference between the base figure and evidence of current capacity as one approach to calculate the step 2 adjustment for that factor. The difference between the 14.61 percent base figure (calculated in Chapter 5) and 4.15 percent DBE participation is 10.46 percentage points $14.61\% - 4.15\% = 10.46\%$. One-half of this difference is a downward adjustment of 5.23 percentage points $(10.46\% \div 2 = 5.23\%)$. The goal would then be calculated as follows: $14.61 - 5.23 = 9.38\%$.

2. Information related to employment, self-employment, education, training, and unions. The study team was not able to quantify all of the information regarding barriers to entry for MBE/WBEs. Quantification of the business ownership factor indicates an upward step 2 adjustment of 4 percentage points to reflect the “but-for” analyses of business ownership rates presented in Figure 6-2.

3. Any disparities in the ability of DBEs to get financing, bonding and insurance. Analysis of financing, bonding and insurance indicates that an upward adjustment is appropriate. However, impact of these factors on availability could not be quantified.

4. Other relevant data. Impact of the many barriers to success of MBE/WBEs in Arizona could not be specifically quantified. However, the evidence supports an upward adjustment.

Summary. ADOT will need to consider whether to make a downward, upward or no step 2 adjustment when determining its overall DBE goal. If ADOT makes a downward step 2 adjustment reflecting current capacity to perform work, its overall DBE goal for FHWA-funded contracts would be 9.38 percent as calculated at the top of page 7. If ADOT decides to not make a downward adjustment and to make an upward adjustment that reflects analyses of business ownership rates, its overall DBE goal would be 18.61 percent. Figure 6-3 summarizes this information.

Figure 6-3.
Two calculations of overall DBE goal after making alternative step 2 adjustments to base figure

| Step 2 adjustment component | Value | Explanation |
|--|---------|--|
| Lower range of overall DBE goal | | |
| Base figure | 14.61 % | From base figure analysis |
| Adjustment for current capacity | -5.23 | 1/2 of diff. between base figure and median past DBE participation |
| Overall DBE goal | 9.38 % | |
| Upper range of overall DBE goal | | |
| Base figure | 14.61 % | From base figure analysis |
| Adjustment for "but for" factors | 4.00 | "But for" adjustment for business ownership |
| Overall DBE goal | 18.61 % | |